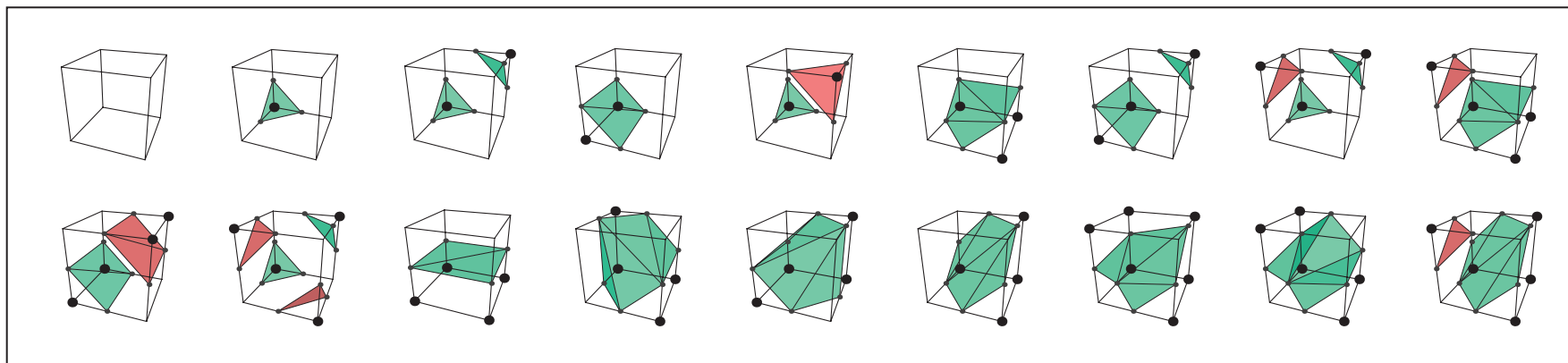


# The Transvoxel Algorithm

transvoxel.org

## Regular cells

256 distinct cases  
18 equiv classes



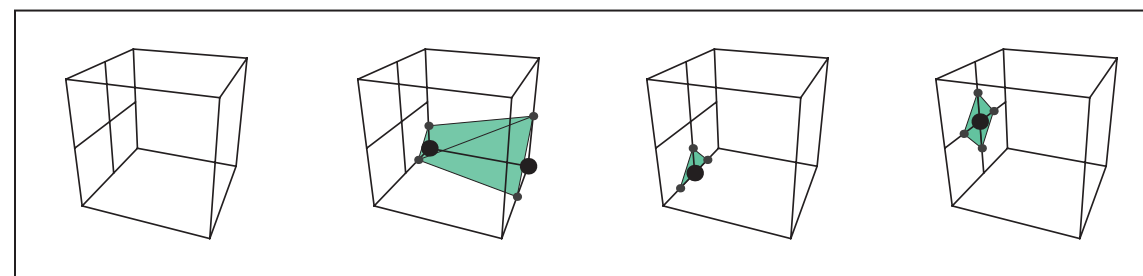
Marching cubes with preferred polarity for ambiguous faces.

## Transition cells

512 distinct cases  
73 equiv classes

### Group A

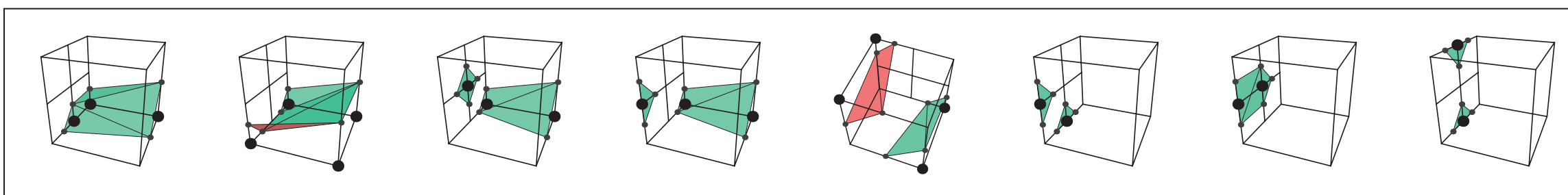
20 cases



Trivial class and all classes having one interior voxel.

### Group B

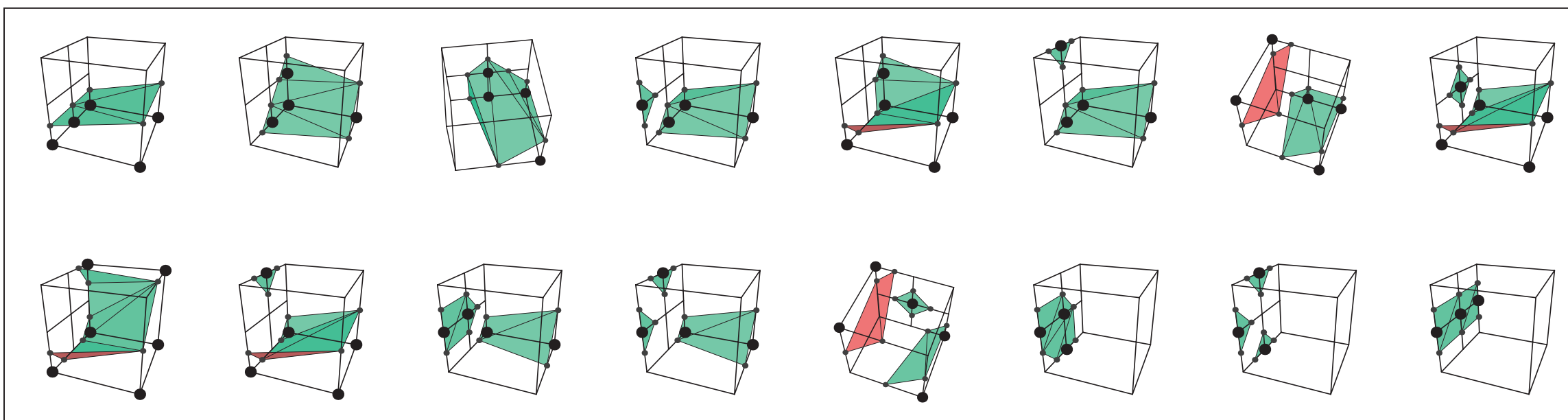
62 cases



All classes having two interior voxels.

### Group C

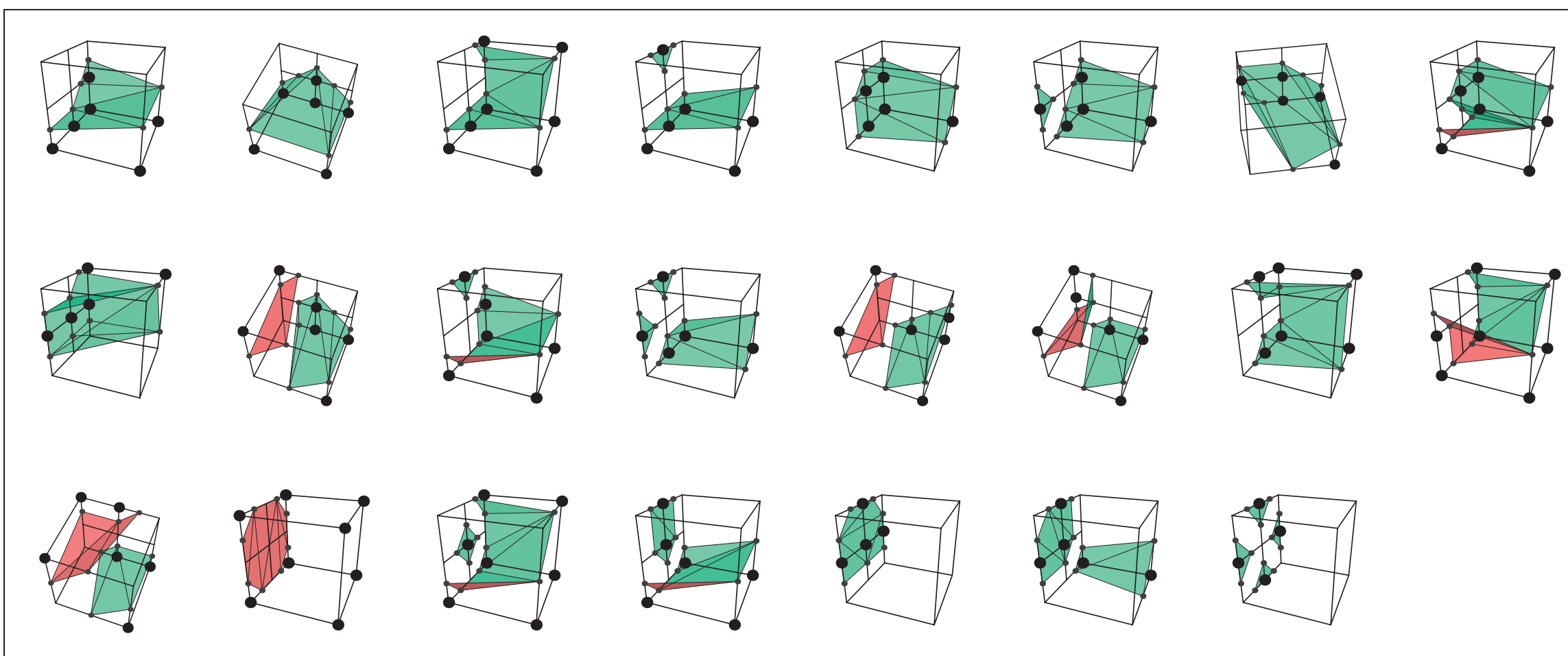
130 cases



All classes having three interior voxels.

### Group D

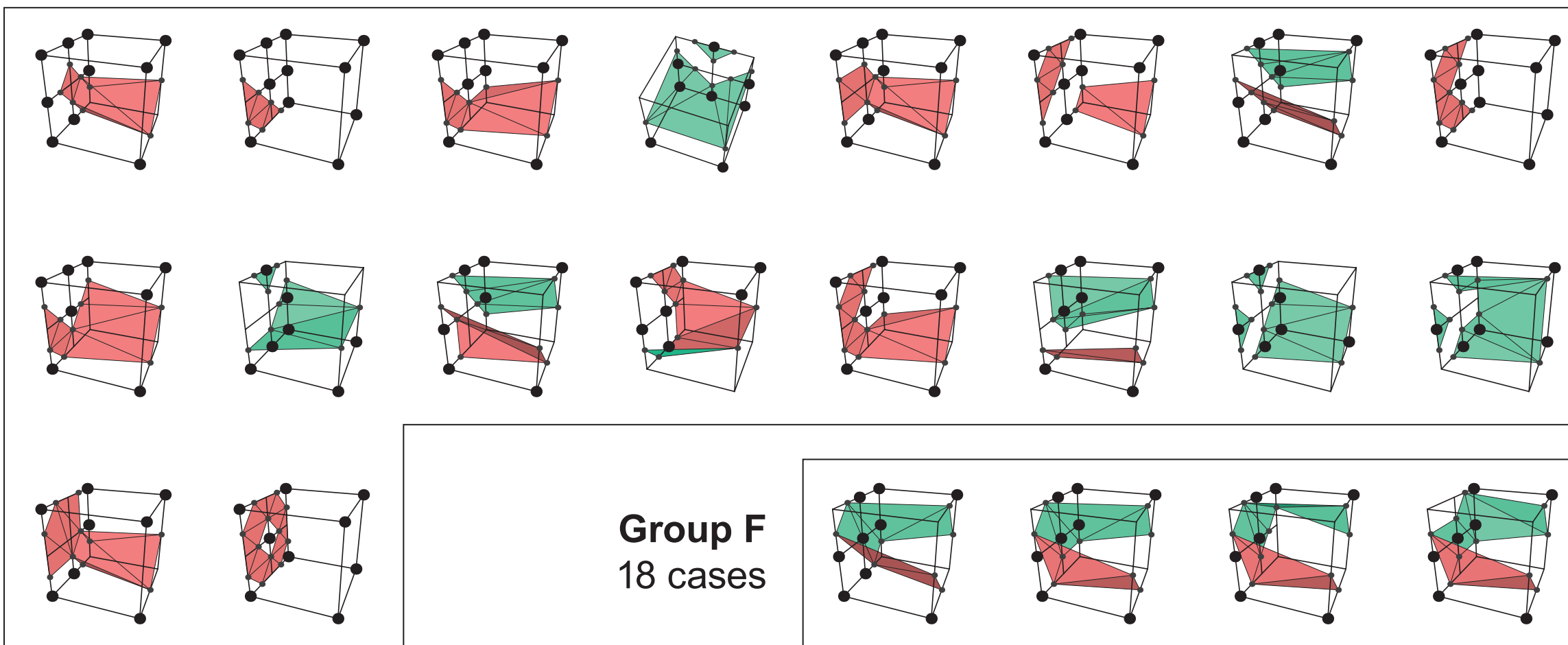
187 cases



All classes having four interior voxels.

### Group E

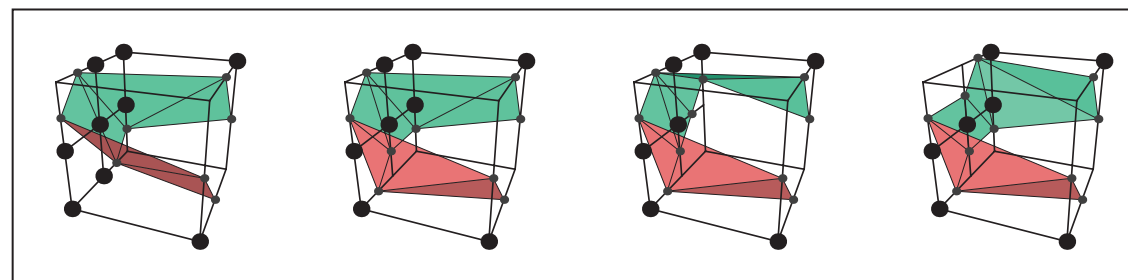
95 cases



Inverses of classes in groups B, C, and D having at least one ambiguous quadrant on the full-resolution face.

### Group F

18 cases



Inverses of classes in groups B, C, and D having no ambiguous quadrants, but for which the half-resolution face is ambiguous.